

NONLINEAR POLARIZATION AMPLIFIERS
IN NONZERO DISPERSION SHIFTED FIBER

ABSTRACT

A broadband fiber transmission system includes a transmission line with at least one zero dispersion wavelength λ_0 and transmits an optical signal of λ . The transmission line includes a distributed Raman amplifier that amplifies the optical
5 signal through Raman gain. One or more pump sources are included and operated at wavelengths λ_p for generating a pump light to pump the Raman amplifier. λ is close to λ_0 and λ_0 is less than 1540 nm or greater than 1560 nm.